

However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to deposit account no. 20-0778.

REMARKS

This is a full and timely response to the outstanding final Office Action mailed on May 14, 2003. Reconsideration and allowance of the application and presently pending claims 1-33 are respectfully requested.

Present Status of the Patent Application

Claims 1-33 remain pending in the present application. Claims 1-33 have been rejected.

Response To Claim Rejections Under 35 U.S.C. §102

Claims 1-33 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Pickett et al. (U.S. Patent No. 6,356,554). Applicant respectfully traverses this rejection.

For a proper rejection of a claim under U.S.C. §102(e), the cited reference must disclose all elements/features/steps of the claim. See, e.g., *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

Independent Claim 1

Independent claim 1 is allowable for at least the reason that Pickett does not disclose, teach, or suggest that “the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.”

In this regard, and with reference to the teachings of the Pickett patent, the Office Action has cited Fig. 19; col. 5, line 60 through col.6. line 19; col. 40, lines 35-65; col. 43, line 65 through col. 44, line 20; and col. 44, line 54 through col. 45, line 31:

Communications system 50 provides an integrated system for controlling and managing communications such as in an office. Communications system 50

communicates over ports 26 to file server 20, printer 22 and one or more computers 24. Ports 26 typically includes a packet bus such as Ethernet, "fast" Ethernet, ATM or other LAN technology (in other embodiments, LAN technology, such as token ring, may be coupled to an appropriately configured port). Communications system 50 includes devices for controlling ports 26, including controllers such as what are known as a network interface controller (NIC), which may integrate a media access controller (MAC) for control of and interface to ports 26. Connected to ports 26 may be a variety of devices, such as one or more file servers 20, computers 24, printers 24 and other computing, peripheral or similar devices suitable for interconnection with ports 26. Other network devices, such as routers, switches, bridges and the like also may be connected to ports 26. In a one preferred embodiment, ports 26 is an Ethernet-type LAN to which is connected to a variety of devices as determined by the needs of the particular office/work environment. The present invention effective integration of the packet data LAN and router-type functions with the telephony and server-functions, which enables unique operations and the initiation or completion of calls or transactions or the like, without having access to traditional, dedicated devices, peripherals and communications services.

It also should be noted that password/user identification security arrangements are preferably utilized in such embodiments in order to maintain security over the configuration and operation of communications system 50. Encryption techniques also may be utilized in order to improve such security if desired for the particular application.

It also should be noted that such embodiments preferably operate on the basis of "transactions." Preferably, the remote computer or client coupled to communications system 50 using a session implemented with HTTP "tunneling" establish a transaction-based interaction. In accordance with such embodiments, the client initiates a transaction using, for example, Java programming remotely, such as over the Internet, preferably using what is known as a private virtual network or private virtual channel connection. The particular transaction or operation (such as described elsewhere herein) are initiated by client and proceed until completion, at which time the results of the transaction are made known to the client, or else the client has the option prior to completion of the transaction of "rolling back" or canceling the transaction in the event that the client user determines that something is wrong or incorrect with the transaction, etc. Preferably, the software on the communications system "server" prompts the client with an option to accept, modify or roll-back the transaction. In preferred embodiments, the client-server session may process one or a series of such transactions. With such a transaction-based system, remote commands and operations may be performed in a more secure manner between the preferably Java client and server, all of which is preferably achieved using HTTP tunneling as previously described.

Based on the description provided elsewhere, it will be apparent that communications system 50 may be coupled to other such communications

systems in a manner desirable for the particular application. FIG. 18 illustrates three such communications systems 50A, 50B and 50C (in other embodiments other numbers of such communications systems 50 may be provided). The various communications systems are coupled to various desired WAN services (WAN services 58A, 58B and 58C being illustrated), and also may be coupled to each other, such as through connections 410A and 410B, etc. Connections 410A and 410B may be, for example, an ethernet or other LAN-type connection (e.g., for multiple communications systems 50 in the same general locations or physical proximity), or alternatively may be a remote connection such as a connection established over the Internet (e.g., an IP connection), such as for communications system 50 geographically remote from each other (e.g., a head office and one or more remote satellite-type offices, etc.). FIG. 3 illustrates the various paths that may be utilized to establish such a connection. What is important is that information may be coupled between the various communications systems in a manner suitable for the particular physical configuration.

FIG. 19 illustrates another configuration of a plurality of communications systems 50 (this type of configuration may be substituted for the configuration illustrated in FIG. 18, or vice versa, or some combination of these configurations). While three communications systems are illustrated (50A, 50B and 50C), other numbers of communications systems are utilized in other embodiments.

As illustrated, communications system 50A is coupled to WAN services 58A over connection 412 (the other communications systems may be similarly coupled to WAN services, etc.), which may be any suitable connection/link such as described elsewhere herein. As described elsewhere herein, VoIP (or other packetized voice/data communications) may be coupled to/from WAN services 58A and communications system 50A. As previously described, communications systems in accordance with the present invention include suitable HDLC or other data framing/deframing engines, DSPs (such as for decompression or other processing), PBX and LAN router types of functions. With an arrangement such as illustrated in FIG. 19, a VoIP or similar or other packetized data may be received, for example, by communications system 50A. This data stream conventionally might be de-packetized and processed upon receipt by the receiving system. Communications systems in accordance with embodiments of the present invention, however, have the ability to route the data stream to other communications systems (e.g., 50B or 50C) over a suitable connection 410C. As previously described, such systems may be coupled via an ethernet or LAN type connection, an IP or other connection, which preferably supports packetized transmissions. Thus, a packetized communication/data stream may be received by a first communications system, which may depacketize and process the communication/data stream, or forward without depacketizing to a second communications system, which may depacketize and process the communication/data stream, or forward without depacketizing to a third communications system, and so on. In this manner VoIP or other communications may be achieved with a plurality of communications systems, with a reduced latency over systems that, for example, must depacketize, decompress, etc. the

data stream before it is provided to another computer or system. Thus, a data stream may be routed by one communications system to another without such additional processing.

As can be verified from a review of these cited portions of Pickett, there is no teaching or disclosure that “the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.” Pickett merely discloses that “the remote computer or client coupled to communications system 50 ... establish a transaction-based interaction,” such that “the client initiates a transaction using ... Java programming remotely, such as over the Internet, preferably using ... a private virtual network or private virtual channel connection.” Significantly, the remote computer and the communication system 50 do **not** communicate over a LAN and do **not** assign virtual connections. Accordingly, the rejection is deficient in this area. Notwithstanding, the undersigned has reviewed the entirety of the Pickett patent and has failed to identify any such teaching anywhere within this reference. Accordingly, the Pickett patent fails to teach or disclose the invention as defined by claim 1, and the rejection of claim 1 should be withdrawn.

Independent Claim 13

Independent claim 13 is allowable for at least the reason that Pickett does not disclose, teach, or suggest “using a master computer to assign at least one virtual connection to each computer in communication with the LAN.”

In this regard, and with reference to the teachings of the Pickett patent, the Office Action has cited Fig. 19; col. 5, line 60 through col.6. line 19; col. 40, lines 35-65; col. 43, line 65 through col. 44, line 20; and col. 44, line 54 through col. 45, line 31:

Communications system 50 provides an integrated system for controlling and managing communications such as in an office. Communications system 50 communicates over ports 26 to file server 20, printer 22 and one or more computers 24. Ports 26 typically includes a packet bus such as Ethernet, "fast" Ethernet, ATM or other LAN technology (in other embodiments, LAN technology, such as token ring, may be coupled to an appropriately configured port). Communications system 50 includes devices for controlling ports 26, including controllers such as what are known as a network interface controller (NIC), which may integrate a media access controller (MAC) for control of and interface to ports 26. Connected to ports 26 may be a variety of devices, such as

one or more file servers 20, computers 24, printers 24 and other computing, peripheral or similar devices suitable for interconnection with ports 26. Other network devices, such as routers, switches, bridges and the like also may be connected to ports 26. In a one preferred embodiment, ports 26 is an Ethernet-type LAN to which is connected to a variety of devices as determined by the needs of the particular office/work environment. The present invention effective integration of the packet data LAN and router-type functions with the telephony and server-functions, which enables unique operations and the initiation or completion of calls or transactions or the like, without having access to traditional, dedicated devices, peripherals and communications services.

It also should be noted that password/user identification security arrangements are preferably utilized in such embodiments in order to maintain security over the configuration and operation of communications system 50. Encryption techniques also may be utilized in order to improve such security if desired for the particular application.

It also should be noted that such embodiments preferably operate on the basis of "transactions." Preferably, the remote computer or client coupled to communications system 50 using a session implemented with HTTP "tunneling" establish a transaction-based interaction. In accordance with such embodiments, the client initiates a transaction using, for example, Java programming remotely, such as over the Internet, preferably using what is known as a private virtual network or private virtual channel connection. The particular transaction or operation (such as described elsewhere herein) are initiated by client and proceed until completion, at which time the results of the transaction are made known to the client, or else the client has the option prior to completion of the transaction of "rolling back" or canceling the transaction in the event that the client user determines that something is wrong or incorrect with the transaction, etc. Preferably, the software on the communications system "server" prompts the client with an option to accept, modify or roll-back the transaction. In preferred embodiments, the client-server session may process one or a series of such transactions. With such a transaction-based system, remote commands and operations may be performed in a more secure manner between the preferably Java client and server, all of which is preferably achieved using HTTP tunneling as previously described.

Based on the description provided elsewhere, it will be apparent that communications system 50 may be coupled to other such communications systems in a manner desirable for the particular application. FIG. 18 illustrates three such communications systems 50A, 50B and 50C (in other embodiments other numbers of such communications systems 50 may be provided). The various communications systems are coupled to various desired WAN services (WAN services 58A, 58B and 58C being illustrated), and also may be coupled to each other, such as through connections 410A and 410B, etc. Connections 410A and 410B may be, for example, an ethernet or other LAN-type connection (e.g., for multiple communications systems 50 in the same general locations or physical proximity), or alternatively may be a remote connection such as a connection

established over the Internet (e.g., an IP connection), such as for communications system 50 geographically remote from each other (e.g., a head office and one or more remote satellite-type offices, etc.). FIG. 3 illustrates the various paths that may be utilized to establish such a connection. What is important is that information may be coupled between the various communications systems in a manner suitable for the particular physical configuration.

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As can be verified from a review of these cited portions of Pickett, there is no teaching or disclosure of "using a master computer to assign at least one virtual connection to each computer in communication with the LAN." Pickett merely discloses that "the remote computer or client coupled to communications system 50 ... establish a transaction-based interaction," such that

“the client initiates a transaction using ... Java programming remotely, such as over the Internet, preferably using ... a private virtual network or private virtual channel connection.” Significantly, the remote computer and the communication system 50 do **not** communicate over a LAN and do **not** assign virtual connections. Accordingly, the rejection is deficient in this area. Notwithstanding, the undersigned has reviewed the entirety of the Pickett patent and has failed to identify any such teaching anywhere within this reference. Accordingly, the Pickett patent fails to teach or disclose the invention as defined by claim 13, and the rejection of claim 13 should be withdrawn.

Independent Claim 28

Independent claim 28 is allowable for at least the reason that Pickett does not disclose, teach, or suggest “means to identify and forward LAN to WAN data transfers via the first communication link” or “means to selectively receive WAN to LAN data transfers at each device integrated on the LAN.”

First, Applicant notes that the above elements are set forth in means plus function format. Pursuant to 35 U.S.C. § 112(6), a claim element recited in means-plus-function format “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6. The Federal Circuit has clearly endorsed this statutory mandate by holding that claims interpreted under 35 U.S.C. § 112, paragraph 6, are limited to the corresponding structure disclosed in the specification and its equivalents. Kahn v. General Motors Corp. 135 F.3d 1472, 45 U.S.P.Q.2d 1608 (Fed. Cir. 1998).

There should be no question but that the above elements in claim 28 are to be construed pursuant to 35 U.S.C. § 112, paragraph 6. In Greenberg v. Ethicon Endo-Surgical Inc., 91 F.3d 1580, 39 U.S.P.Q. 2d 1783 (Fed. Cir. 1996), the Federal Circuit stated that the use of “means for” language generally invokes 112(6). Indeed, only if means plus function claim elements recite sufficient structure to carry out the function are they taken out of the ambit of 35 U.S.C. § 112, paragraph 6. Cole v. Kimberly-Clark Corp., 102 F.3d 524, 41 U.S.P.Q.2d 1001 (Fed. Cir. 1996).

Indeed, the Federal Circuit reiterated in Sage Products, Inc. v. Devon Industries, Inc., 126 F.3d 1420, 44 U.S.P.Q.2d 1103 (Fed. Cir. 1998) that “the use of the word ‘means,’ which is part of the classic template for functional claim elements, gives rise to ‘a presumption that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses.” Ultimately, the Court in Sage construed the relevant claim elements under 35 U.S.C. § 112(6), because ‘means’ were recited, and the claim elements did not “explicitly recite[s] the structure, material, or acts needed to perform the [recited] functions. Sage at p. 1428. The Federal Circuit further acknowledged this presumption in Al-Site Corp. v. VSI International, Inc., 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999).

Thus, claim elements expressed in “means” plus function format are construed is determined in accordance with 35 U.S.C. § 112, paragraph 6, as set forth above, and as further described in In re Donaldson 16 F.3d 1189, 29 U.S.P.Q.2d 1845 (Fed. Cir. 1994)(*en banc*). Therefore, the various “means” elements must be construed in accordance with the structure set forth in the present specification. In this regard, Applicant notes that, in In re Donaldson, The Board of Patent Appeals and Interferences advanced the legal proposition that “limitations appearing in the specification are *not* to be read into the claims of an application.” In re Donaldson at 1848. This argument, however, was rejected by the Federal Circuit, which held, as a matter of law, that “one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure ... described therein, and equivalents thereof. In re Donaldson at 1848. Furthermore, the holding in In re Donaldson does not conflict with the principle that claims are to be given their broadest reasonable interpretation during prosecution. In re Donaldson at 1850.

The corresponding structure disclosed in the present specification that corresponds to the various means elements is distinct from that disclosed in the cited patent. For at least this reason, Applicant submits that the rejection of claim 28 should be withdrawn.

The fact that the Office Action has rejected claim 28 on an identical basis with claims 1 and 13 reflects a fundamental error of law, insofar as the Office Action has accorded means plus function claim elements an identical interpretation with non-means plus function claim elements. For at least this additional reason, the rejection of claim 28 should be withdrawn.

Dependent Claims:

Dependent claims 2-12, 14-27, and 29-33 are allowable for at least the reason that these claims depend from allowable independent claims 1, 13, and 28, respectively. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Prior Art Made of Record

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-33 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Daniel R. McClure', written over a horizontal line.

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